

## REMARKS

In accordance with the foregoing, the specification and claims 1, 5, and 13-16 have been amended, claims 17-24 and 47 have been canceled without prejudice or disclaimer, and new claim 48 has been added. Claims 1-16 and 48 are pending, with claims 1, 5, and 13 being independent. No new matter is presented in this Amendment.

### Request for Correction of Title of Invention in PTO's Computer Records

The title of the invention was amended in the Amendment Accompanying Request for Continued Examination (RCE) of October 31, 2007, to read as follows:

DATA STORAGE MEDIUM IN WHICH MULTIPLE BITSTREAMS  
ARE RECORDED, APPARATUS AND METHOD FOR  
RECORDING THE MULTIPLE BITSTREAMS, AND APPARATUS  
AND METHOD FOR REPRODUCING THE MULTIPLE  
BITSTREAMS

However, as of the filing date of this Amendment, the PTO's computer records for the present application list the following incorrect title of the invention:

DATA STORAGE MEDIUM IN WHICH MULTIPLE BITSTREAMS  
ARE RECORDED, APPARATUS AND METHOD FOR THE  
MULTIPLE BITSTREAMS, AND APPARATUS AND METHOD  
FOR REPRODUCING THE MULTIPLE BITSTREAMS

That is, the phrase "APPARATUS AND METHOD FOR THE MULTIPLE BITSTREAMS" in the middle of the title of the invention should read "APPARATUS AND METHOD FOR RECORDING THE MULTIPLE BITSTREAMS."

Accordingly, it is respectfully requested that the Examiner take the necessary steps to have the title of the invention in the PTO's computer records corrected to read as follows by adding the word "RECORDING" as indicated by the underlining:

DATA STORAGE MEDIUM IN WHICH MULTIPLE BITSTREAMS  
ARE RECORDED, APPARATUS AND METHOD FOR  
RECORDING THE MULTIPLE BITSTREAMS, AND APPARATUS  
AND METHOD FOR REPRODUCING THE MULTIPLE  
BITSTREAMS

Request for Indication that References Cited in Information Disclosure Statements Have Been Considered

A copy of a Korean Office Action issued on November 25, 2002, in Korean Application No. 2001-5374 was submitted with the Information Disclosure Statement of March 13, 2003, and is the image file wrapper of the present application, but was not listed in the List of References Cited by Applicant included in that Information Disclosure Statement.

A copy of a European Search Report issued on November 28, 2003, in European Application No. 0131066.1 was submitted with the Information Disclosure Statement of January 26, 2004, and is in the image file wrapper of the present application, but was not listed in the List of References Cited by Applicant included in that Information Disclosure Statement.

A copy of a Japanese Office Action issued on April 13, 2004, in Japanese Application No. 2001-398557 was submitted with the Information Disclosure Statement of July 9, 2004, and is in the image file wrapper of the present application, but was not listed in the List of References Cited by Applicant included in that Information Disclosure Statement.

A copy of a Japanese Office Action issued on August 31, 2004, in Japanese Application No. 2001-398557 was cited in the Information Disclosure Statement of November 12, 2004, and is in the image file wrapper of the present application, but was listed merely as "Japanese Office Action" in the List of References Cited by Applicant included in that Information Disclosure Statement.

Accordingly, attached hereto is a List of References Cited by Applicant listing the first three references referred to above that have not previously been listed and providing a complete citation of the Japanese Office Action issued on August 31, 2004, referred to above for the Examiner's convenience in indicating that these four references have been considered.

Double Patenting Rejections

Claims 1-7, 9, 11, 13-24, and 47 have been provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-4 and 10-12 of copending Application No. 10/986,133.

Claims 8, 10, and 12 have been provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 3 and 4 of copending Application No. 10/986,133 in view of Yamauchi et al. (Yamauchi) (U.S. Patent No. 6,088,507).

Claims 1-7, 9, 11, and 47 have been provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-4 of copending Application No. 11/432,391.

Claims 8, 10, and 12-24 have been provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 3, 4, and 13 of copending Application No. 11/432,391 in view of Yamauchi.

Claims 1-7, 9, 11, and 47 have been provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 21-24 of copending Application No. 11/431,657.

Claims 8, 10, and 12-24 have been provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 3, 4, and 31 of copending Application No. 11/431,657 in view of Yamauchi.

The above provisional rejections of claims 17-24 and 47 are moot since these claims have been canceled in this Amendment. The above provisional rejections of claims 1-16 are respectfully traversed.

In explaining the provisional rejection of claim 1 on the ground of nonstatutory obviousness-type double patenting based on copending Application No. 10/986,133, the Examiner states as follows in pertinent part on page 3 of the Office Action of February 1, 2008:

It is noted that claim 1 of this application is broader than and encompass [sic] claim 1 of copending Application No. 10/986,133 and; therefore, obviousness-type double patenting rejection is applied. It should be noted that the recording apparatus claim 1 of copending Application No. 10/986,133 can use the storage medium as claimed.

The Examiner provides similar explanations based on this "broader" rationale with respect to the provisional rejection of claims 2-7, 9, 11, 13-24, and 47 based on copending Application No. 10/986,133; the provisional rejection of claims 1-7, 9, 11, and 47 based on

copending Application No. 11/432,391; and the provisional rejection of claims 1-7, 9, 11, and 47 based on copending Application No. 11/431,657.

However, the Examiner has not identified any basis whatsoever in the statutes, rules, procedures, or case law for his position. The undersigned attorney has recently seen several nonstatutory obviousness-type double patenting rejections based on the "broader" rationale relied on by the Examiner, none of which cite any authority to support the rejections.

Furthermore, it is submitted that the Examiner's explanation of the provisional rejections based on the "broader" rationale do not comply with the requirements of a nonstatutory obviousness-type double patenting rejection set forth in MPEP 804(II)(B)(1), which provides as follows in pertinent part on MPEP pages 800-21 and 800-22:

Since the analysis employed in an obviousness-type double patenting determination parallels the guidelines for a 35 U.S.C. 103(a) rejection, the factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103 are employed when making an obvious-type double patenting analysis. These factual inquiries are summarized as follows:

- (A) Determine the scope and content of a patent claim relative to a claim in the application at issue;
- (B) Determine the differences between the scope and content of the patent claim as determined in (A) and the claim in the application at issue;
- (C) Determine the level of ordinary skill in the pertinent art; and
- (D) Evaluate any objective indicia of nonobviousness.

The conclusion of obviousness-type double patenting is made in light of these factual determinations. Any obviousness-type double patenting rejection should make clear:

- (A) The differences between the inventions defined by the conflicting claims — a claim in the patent compared to a claim in the application; and
- (B) The reasons why a person of ordinary skill in the art would conclude that the invention defined in the claim at issue is anticipated by, or would have been an obvious variation of, the invention defined in a claim in the patent.

Here, it is submitted that the Examiner's explanation of the rejection does not make clear the differences between the inventions defined by the conflicting claims, or the reasons why one of ordinary skill in the art would conclude that the invention defined in the claims of the present application is anticipated by, or would have been an obvious variation of, the invention defined in the claims of copending Application Nos. 10/986,133, 11/432,391, and 11/431,657.

Furthermore, the Examiner has not explained why he considers the claims of the present application to be broader than and encompass the claims of copending Application Nos. 10/986,133, 11/432,391, and 11/431,657, or why he is of the opinion that various apparatuses and methods claimed in various claims of copending Application Nos. 10/986,133, 11/432,391, and 11/431,657 can use the storage medium as claimed in various claims of the present application. Rather, the Examiner has merely alleged that this is the case, and therefore has not met his burden of establishing a *prima facie* case.

In explaining the provisional rejection of claims 8, 10, and 12 on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 3 and 4 of copending Application No. 10/986,133 in view of Yamauchi, the Examiner states as follows on page 8 of the Office Action of February 1, 2008:

**Regarding claims 8, 10 and 12** of this application, claims 3 and 4 of copending Application No. 10/986,133 teaches the limitations as discussed above, however fails to particularly teach wherein the received incoming data (main, sub or extra) is an analog form and is further encoded.

Yamauchi et al. teaches in col. 26, lines 16-30 teaches [*sic*] wherein the production method to create the optical disk is a personal computer or a workstation that temporarily stores the volume area data on a magnetic medium. Therefore, during production of an optical disk, a traditional workstation/PC can receive inputs from digital or from analog sources and encode the analog information so that it can be recorded on an optical disk.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the ability to receive an analog signal and encode it so that the information can be stored on a digital medium, and therefore last longer with [*sic*] degradation.

The Examiner provides similar explanations with respect to the provisional rejection of claims 8, 10, and 12 based on copending Application No. 11/432,391 in view of Yamauchi, and

the provisional rejection of claims 8, 10, and 12 based on copending Application No. 11/431,657 in view of Yamauchi.

However, it is submitted that the Examiner's statement "so that the information can be stored on a digital medium, and therefore last longer with degradation" does not make any sense in the context of the Examiner's arguments. The Examiner presumably intended to say "therefore last longer without degradation."

Furthermore, it is submitted that nothing whatsoever in Yamauchi supports the Examiner's allegation that "during production of an optical disk, a traditional workstation/PC can receive inputs from digital or from analog sources and encode the analog information so that it can be recorded on an optical disk." The word "analog" appears only five times in Yamauchi—in column 1, lines 22, 50, 52, and 58, in a discussion of laser discs that store analog data, and in column 16, lines 66-67, which state that the video signals output from the picture mixing unit 90 in FIG. 18 are input to the display monitor 2 in FIG. 16 after being converted into analog signals. Accordingly, it is submitted that the provisional rejections of claims 8, 10, and 12 based on copending Application Nos. 10/986,133, 11/432,391, and 11/431,657 in view of Yamauchi are based solely on a hindsight reconstruction of the invention arrived at by reading claims 8, 10, and 12, which is just as improper in a provisional nonstatutory obviousness-type double patenting as it is in a rejection under 35 USC 103(a).

In explaining the provisional rejection of claims 13-24 on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claim 13 of copending Application No. 11/432,391 in view of Yamauchi, the Examiner states as follows in pertinent part on pages 14 and 15 of the Office Action of February 1, 2008:

**Regarding claim [*sic*] 13-16** of this application, claim 13 of copending Application No. 11/432,391 recites . . . .

Yamauchi et al. teaches mixing the read main data, the read sub data, and the read extra data based on navigation information in Figs. 22-26, which teaches [*sic*] that the stream of Fig. 3, as read out from the optical disk, which is in a sequential order (mixed), is output to the AV decoding unit 85 (meets claimed "digital interface") in Fig. 15 so that the main data, sub and extra data are reproduced in synchronization with each other.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the ability to mix the main, sub and extra data so that the information stored

separately maybe [sic] output in synchronization without any delay in reproduction time.

**Claims 17-20 and 21-24** of this application are rejected for the same reasons as discussed above in claims 13-16, respectively, of this application.

The Examiner provides similar explanations with respect to the provisional rejection of claims 13-24 based on claim 31 of copending Application No. 11/431,657 in view of Yamauchi.

However, it is submitted that FIGS. 22-26 of Yamauchi do not show "mixing the read main data, the read sub data, and the read extra data based on navigation information" as alleged by the Examiner. Nor has the Examiner specifically identified where he considers "mixing" and "navigation information" to be shown in FIGS. 22-26.

Furthermore, with respect to the Examiner's statement that "the stream of Fig. 3, as read out from the optical disk, which is in a sequential order (mixed), is output to the AV decoding unit 85 (meets claimed "digital interface") in Fig. 15 so that the main data, sub and extra data are reproduced in synchronization with each other," it is noted that the AV decoding unit is shown in FIG. 18, not in FIG. 15 as alleged by the Examiner. Furthermore, since Yamauchi's main data (presumably video data), sub data (presumably audio data), and extra data (presumably still picture/sub-picture/subtitle data) that is read out from Yamauchi's optical disk is already mixed as can be seen from FIGS. 4A and 4B of Yamauchi, which show that this data is interleaved in the VOBs (video objects) as described in column 8, lines 40-43, of Yamauchi (which the Examiner apparently recognizes), it is submitted that Yamauchi does not provide any basis whatsoever for one of ordinary skill in the art to modify claim 13 of copending Application No. 11/432,391 to include the feature "mixing the read main data and the read sub data based on navigation information defining a relation required for the read main data and the read sub data to be reproduced in synchronization with each other" recited in independent claim 13 and claims 14-16 depending therefrom as apparently proposed by the Examiner. Nor it is seen where the picture mixing unit 90 in FIG. 18 of Yamauchi teaches this feature of claims 13-16. As described in column 16, lines 63-66, of Yamauchi, "[p]icture mixing unit 90 outputs video signals after mixing the outputs from video decoder 87 and sub-picture decoder 88 according to the ratio specified by system controlling unit 93." It is submitted that the "ratio specified by system controlling unit 93" is not "navigation information defining a relation required for the read main data and the read sub data to be reproduced in synchronization with each other" as recited in claims 13-16.

It is submitted that the above arguments are also applicable to the provisional rejection of claims 17-24 based on claim 13 of copending Application No. 11/432,391 and Yamauchi, and to the provisional rejection of claims 13-24 based on claim 31 of copending Application No. 11/431,657 and Yamauchi.

Furthermore, as recognized by the Examiner, the allegedly conflicting claims of copending Application Nos. 10/986,133, 11/432,391, and 11/431,657 have not in fact been patented, such that the provisional nonstatutory obviousness-type double patenting rejections based on copending Application Nos. 10/986,133, 11/432,391, and 11/431,657 are premature.

However, although the propriety of the provisional nonstatutory obviousness-type double patenting rejections of claims 17-24 and 47 is not conceded for at least the foregoing reasons, these provisional rejections are now moot since claims 17-24 and 47 have been canceled in this Amendment.

Furthermore, as recognized by the Examiner, the provisional nonstatutory obviousness-type double patenting rejections of claims 1-16 can be overcome by filing a terminal disclaimer directed to copending Application Nos. 10/986,133, 11/432,391, and 11/431,657. Accordingly, although the propriety of the provisional nonstatutory obviousness-type double patenting rejections of claims 1-16 is not conceded for at least the foregoing reasons, a terminal disclaimer directed to copending Application Nos. 10/986,133, 11/432,391, and 11/431,657 is being submitted herewith to overcome these rejections solely in an effort to eliminate this issue and expedite the prosecution of the present application.

For at least the foregoing reasons, it is respectfully requested that the provisional nonstatutory obviousness-type double patenting rejections of claims 1-7, 9, 11, and 13-16 as being unpatentable over claims 1-4 and 10-12 of copending Application No. 10/986,133; claims 8, 10, and 12 as being unpatentable over claims 3 and 4 of copending Application No. 10/986,133 in view of Yamauchi; claims 1-7, 9, and 11 as being unpatentable over claims 1-4 of copending Application No. 11/432,391; claims 8, 10, and 12-16 as being unpatentable over claims 3, 4, and 13 of copending Application No. 11/432,391 in view of Yamauchi; claims 1-7, 9, and 11 as being unpatentable over claims 21-24 of copending Application No. 11/431,657; and claims 8, 10, and 12-16 as being unpatentable over claims 3, 4, and 31 of copending Application No. 11/431,657 in view of Yamauchi withdrawn.



Claim Rejections Under 35 USC 101

Claims 1-4 and 47 have been rejected under 35 USC 101 as being directed to non-statutory subject matter. The rejection of claim 47 is moot since this claim has been canceled in this Amendment. The rejection of claims 1-4 is respectfully traversed.

The Examiner states as follows:

Claims 1-4 . . . define a *data storage medium* embodying functional descriptive material. However, the claim [*sic*] does not define a computer-readable medium or memory and is thus non-statutory for that reason (i.e., "When functional descriptive material is recorded on some computer-readable medium it becomes structurally and functionally interrelated to the medium and will be statutory in most cases since use of technology permits the function of the descriptive material to be realized" — Guidelines Annex IV [the "Interim Guidelines for Examination of Patent Applications for Patent Subject Matter Eligibility" published in the November 22, 2005, issue of the Official Gazette]). That is, the scope of the presently claimed *data storage medium* can range from a paper on which the program is written, to a program simply contemplated and memorized by a person. The examiner suggest [*sic*] amending the claim to embody the program on "computer-readable medium" or equivalent in order to make the claim statutory. Any amendment to the claim should be commensurate with its corresponding disclosure.

MPEP 2106.1, which apparently incorporates material from Annex IV of the Guidelines relied on by the Examiner, states as follows in pertinent part on MPEP page 2100-17:

When functional descriptive material is recorded on some computer-readable medium, it becomes structurally and functionally interrelated to the medium and will be statutory in most cases since use of technology permits the function of the descriptive material to be realized. Compare *In re Lowry*, 32 F.3d 1579, 1583-84, 32 USPQ2d 1031, 1035 (Fed. Cir. 1994)(discussing patentable weight of data structure limitations in the context of a statutory claim to a data structure stored on a computer readable medium that increases computer efficiency)

. . . .

Here, it is submitted that the "main data," the "sub data," and the "navigation information" recited in independent claim 1 and the "extra data" recited in dependent claim 2 are recorded on a computer-readable medium as required by MPEP 2106.1 in order to be statutory because claim 1 recites "[a] data storage medium comprising: main data . . . ; sub data . . . ; and

navigation information," and claim 2 recites "[t]he data storage medium of claim 1, further comprising extra data," and a data storage medium is one type of a computer-readable medium.

The rejection appears to be based on the fact that claims 1-4 do not recite the exact phrase "computer-readable medium." However, it is submitted that nothing whatsoever in MPEP 2106.01 requires that a claim reciting functional descriptive material must recite that the functional descriptive material is recorded on a "computer-readable medium" to be statutory under 35 USC 101. Rather, MPEP 2106.01 states that "[w]hen functional descriptive material is recorded on some computer-readable medium, it becomes structurally and functionally interrelated to the medium and will be statutory in most cases," citing *In re Lowry*, 32 F.3d 1579, USPQ2d 1031 (Fed. Cir. 1994). In *Lowry*, the Court held that a claim that recited "[a] memory for storing data for access by an application program being executed on a data processing system, comprising: a data structure stored in said memory" was statutory under 35 USC 101, and that the "data structure" must be given patentable weight.

MPEP 2106.01 also cites *In re Warmerdam*, 33 F.3d 1354, 31 USPQ2d 1754 (Fed. Cir. 1994), in which the Court held that a claim reciting "[a] machine having a memory which contains data representing a bubble hierarchy generated by the method of any of Claims 1 through 4" was statutory under 35 USC 101.

In *In re Beauregard*, 53 F.3d 1583, 35 USPQ2d 1383 (Fed. Cir. 1995), the Court stated that "[t]he Commissioner [of Patents and Trademarks] now states 'that computer programs embodied in a tangible medium, such as floppy diskettes, are patentable subject matter under 35 U.S.C. § 101 and must be examined under 35 §§ U.S.C. 102 and 103.' "

At issue in *Beauregard* was Application No. 07/521,858, which issued as U.S. Patent No. 5,710,578 on January 20, 1998, and contains claims that recite "[a]n article of manufacture comprising: a computer usable medium having computer readable program code means embodied therein" and similar claims; "[a] computer program product comprising: a computer usable medium having computer readable program code means embodied in said medium" and similar claims; and "[a] program storage device readable by a machine, tangibly embodying a program of instructions executable by the machine."

In *In re Nuijten*, 500 F.3d 1346, 84 USPQ2d 1495 (Fed. Cir. 2007), the Court pointed out that in *Ex parte Nuijten*, 84 USPQ2d 1335 (Bd. Pat. App. & Inter. 1996), the Board of Patent Appeals and Interferences had found that "[t]he storage medium in claim 15 nominally puts the

claim into the statutory category of a 'manufacture' " and had reversed the Examiner's rejection of claim 15 under 35 USC 101. Claim 15 recited "[a] storage medium having stored thereon a signal with embedded supplemental data."

For at least the foregoing reasons, it is submitted that a claim reciting functional descriptive material is not required to recite that the functional descriptive material is recorded on a "computer-readable medium" to be statutory under 35 USC 101. It is submitted that the "data storage medium" recited in claims 1-4 is but one of many examples of the "some computer-readable medium" referred to in MPEP 2106.01 that include the "memory" in the *Lowry* and *Warmerdam* decisions; the "tangible medium" in the *Beauregard* decision; the "computer usable medium" and the "program storage device" in the *Beauregard* patent; and the "storage medium" in the *Nuijten* decisions.

For at least the foregoing reasons, it is submitted that claims 1-4 are in fact statutory under 35 USC 101 under the guidelines set forth in MPEP 2106.1, and it is respectfully requested that the rejection of claims 1-4 under 35 USC 101 as being directed to non-statutory subject matter be withdrawn.

It is noted that the Office Action of February 1, 2008, is the fifth Office Action that has been issued in the present application (not counting the Advisory Action of January 3, 2007), yet this is the first time the Examiner has raised the issue of claims 1-4 being non-statutory because they recite a data storage medium instead of a computer-readable medium, even though claims 1-4 have recited a data storage medium since the present application was filed. Accordingly, should the Examiner repeat the rejection in the next Office Action on the basis of some recent internal PTO guidelines that require claims 1-4 to recite a "computer-readable medium" in order to be statutory (other than the MPEP and the Guidelines Annex IV, which do not support the Examiner's position), it is respectfully requested that the Examiner provide a copy of such internal PTO guidelines with the next Office Action so that the applicants can properly evaluate the Examiner's basis for the rejection, regardless of whether such guidelines are official or unofficial, such as unofficial guidelines provided by a TQAS (training quality assurance specialist) in Technology Center 2600.

Claim Rejections Under 35 USC 102

Claims 1-24 and 47 have been rejected under 35 USC 102(e) as being anticipated by Yamauchi et al. (Yamauchi) (U.S. Patent No. 6,088,507). The rejection of claims 17-24 and 47 is moot since these claims have been canceled in this Amendment. The rejection of claims 1-16 is respectfully traversed.

It is submitted that Yamauchi does not disclose "sub data recorded in a separate bitstream from the main data to be reproduced in synchronization with the main data by a reproducing apparatus" as recited in independent claim 1, or "recording sub data to be reproduced in synchronization with the main data in a separate bitstream from the main data" as recited in independent claim 5, or "reading sub data recorded in a separate bitstream from the main data, on the data storage medium, which is reproduced in synchronization with the main data" as recited in independent claim 13, because FIGS. 4A and 4B of Yamauchi show that the main data (presumably the video data), the sub data (presumably the audio data), and the extra data (presumably the still picture/sub-picture/subtitle data) is interleaved in the same bitstream in a VOB (video object) as described in column 8, lines 40-43, of Yamauchi. Although FIG. 4A of Yamauchi shows elementary streams (1) (video data) (2)-(4) (audio data), and (5)-(6) (sub-picture data), these elementary streams (1)-(6) are not recorded in separate bitstreams on the optical disc, but are recorded on the optical disc interleaved in the VOBs as described in column 8, lines 40-43, of Yamauchi.

Furthermore, it is submitted that Yamauchi does not disclose the feature "wherein the navigation information comprises . . . playback time information for the sub data corresponding to the main data" recited in claims 1 and 5, or the feature "wherein the navigation information comprises . . . playback time information for the read sub data corresponding to the read main data" recited in claim 13.

The Examiner apparently considers these features of claims 1, 5, and 13 to be disclosed in column 14, lines 4-57, of Yamauchi, stating on pages 24 and 25 of the Office Action of February 1, 2008, that Yamauchi discloses "wherein the navigation information comprises . . . playback time information (as discussed above in col. 14, lines 4-57, the sub picture channel is played in synchronization with the main audio/video data) for the sub data corresponding to the main data." By "as discussed above," the Examiner means the following statement on page 24 of the Office Action of February 1, 2008:

navigation information (col. 14, lines 4-57 teaches of a PGC Information Management Table that stores a "SP CH Table" that is used to reproduce a particular Sub-picture channel in conjunction with the video playback as discussed in col. 13, lines 42-52) defining a relation required for the main data and the sub data to be output in synchronization with each other by the reproducing apparatus.

Column 13, lines 36-52, of Yamauchi reads as follows:

The PGC information specifies a plurality of VOBs, an order of reproducing the plurality of VOBs, a next PGC, and a relation between the audio and sub-picture logical channels and the audio and sub-picture physical channels. Each piece of PGC information is, as shown in FIG. 13A, comprised of an audio channel table, a sub-picture channel table, a PGC connection information, a pre-processing command group, a post-processing command group, and a route information.

The route information is comprised of a plurality pieces of VOB position information which are arranged in the order of reproduction. The route information of PGC information #1, for example, is comprised of the four pieces of VOB position information respectively corresponding to VOB #1-4. Each piece of VOB position information includes the logical address of the first sector of a VOB and the number of all the sectors assigned to the VOB.

However, it is not seen where this portion of Yamauchi or any other portion of Yamauchi discloses that the PGC information referred to in this passage, or the sub-picture channel table SPCH referred to in column 14, lines 28-30, of Yamauchi, include "playback time information" as recited in claims 1, 5, and 13. Nor is it seen where FIGS. 13A, 13B, 14, and 15 of Yamauchi, which show the contents of the PGC information and the sub-picture channel table SPCH, show such "playback time information."

Furthermore, it is not seen where Yamauchi discloses "reproducing the read main data and the read sub data based on navigation information defining a relation required for the read main data and the read sub data to be reproduced in synchronization with each other" as now recited in claim 13. The previous version of claim 13 recited "mixing the read main data and the read sub data based on navigation information defining a relation required for the read main data and the read sub data to be reproduced in synchronization with each other," but the Examiner did not address this feature of claim 13 in explaining the rejection of claim 13 under 35

USC 102(e) as being anticipated by Yamauchi on page 26 of the Office Action of February 1, 2008.

However, in explaining the provisional rejection of claims 13-16 on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claim 13 of copending Application No. 11/432,391 in view of Yamauchi on pages 14 and 15 of the Office Action of February 1, 2008, the Examiner states as follows on page 15:

Yamauchi et al. teaches mixing the read main data, the read sub data, and the read extra data based on navigation information in Figs. 22-26, which teaches [*sic*] that the stream of Fig. 3, as read out from the optical disk, which is in a sequential order (mixed), is output to the AV decoding unit 85 (meets claimed "digital interface") in Fig. 15 so that the main data, sub and extra data are reproduced in synchronization with each other.

However, it is submitted that FIGS. 22-26 of Yamauchi do not show "mixing the read main data, the read sub data, and the read extra data based on navigation information" as alleged by the Examiner. Nor has the Examiner specifically identified where he considers "mixing" and "navigation information" to be shown in FIGS. 22-26.

Furthermore, with respect to the Examiner's statement that "the stream of Fig. 3, as read out from the optical disk, which is in a sequential order (mixed), is output to the AV decoding unit 85 (meets claimed "digital interface") in Fig. 15 so that the main data, sub and extra data are reproduced in synchronization with each other," it is noted that the AV decoding unit is shown in FIG. 18, not in FIG. 15 as alleged by the Examiner. Furthermore, since Yamauchi's main data (presumably video data), sub data (presumably audio data), and extra data (presumably still picture/sub-picture/subtitle data) that is read out from Yamauchi's optical disk is already mixed as can be seen from FIGS. 4A and 4B of Yamauchi, which show that this data is interleaved in the VOBs (video objects) as described in column 8, lines 40-43, of Yamauchi (which the Examiner apparently recognizes), it is submitted that Yamauchi does not disclose "mixing the read main data and the read sub data based on navigation information defining a relation required for the read main data and the read sub data to be reproduced in synchronization with each other" as previously recited in claim 13, or "reproducing the read main data and the read sub data based on navigation information defining a relation required for the read main data and the read sub data to be reproduced in synchronization with each other" as now recited in claim 13.

Nor it is seen where the picture mixing unit 90 in FIG. 18 of Yamauchi teaches these current and previous features of claim 13. As described in column 16, lines 63-66, of Yamauchi, "[p]icture mixing unit 90 outputs video signals after mixing the outputs from video decoder 87 and sub-picture decoder 88 according to the ratio specified by system controlling unit 93." It is submitted that the "ratio specified by system controlling unit 93" is not "navigation information defining a relation required for the read main data and the read sub data to be reproduced in synchronization with each other" as recited in claim 13.

For at least the foregoing reasons, it is respectfully requested that the rejection of claims 1-16 (i.e., claims 1, 5, and 13 discussed above and claims 2-4, 6-12, and 14-16 depending therefrom) under 35 USC 102(e) as being anticipated by Yamauchi be withdrawn.

#### Patentability of New Claim 48

It is submitted that new dependent claim 48 is statutory under 35 USC 101 pursuant to MPEP 2106.1 discussed above because it recites "wherein the data storage medium is an apparatus-readable medium that is readable by the reproducing apparatus," and are patentable over Yamauchi at least by virtue of its dependency from claim 1. An indication to that effect is respectfully requested.

#### Conclusion

There being no further outstanding objections or rejections, it is submitted that the application is in condition for allowance. An early action to that effect is courteously solicited.


Finally, if there are any formal matters remaining after this response, the Examiner is requested to telephone the undersigned to attend to these matters.

If there are any additional fees associated with the filing of this paper, please charge the same to our Deposit Account No. 503333.

Respectfully submitted,

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